

**IN THE CLAIMS:**

This listing of claims will replace all prior versions and listing of claims in the application:

1. (Canceled)

2. (Currently Amended) ~~The method of claim 1 wherein updating the revision control system to include a new version of the system components further comprises:~~

A method for facilitating robust revision control of components of a system, the method comprising:

storing a plurality of system components under revision control in a master repository, according to internal names;

storing, under revision control in the master repository, a binding between the internal name of each of the plurality of system components and its corresponding external name;

storing, under revision control in the master repository, attributes concerning system components;

storing, in the master repository, a journal of operations performed on system components;

responsive to a user performing an operation on at least one system component according to its external name, updating the journal accordingly;

responsive to a user indication, updating the revision control system to include a new version of its contents reflecting a change-set of operations consisting of all operations performed by the user on system components since a previous indication, from the user;

reading the journal to determine which operations have been performed by the user on system components since the previous indication from the user;

determining the internal names of affected system components;

updating affected system components in the revision control system according to the user performed operations;

updating the journal to reflect processing of the user indication; and

associating a new version number with a resulting state of the revision control system.

3. (Original) The method of claim 2 wherein updating the revision control system to include a new version of the system components further comprises:

updating the stored bindings to reflect at least one change to at least one external name of at least one affected system component made by at least one user operation.

4. (Original) The method of claim 2 wherein updating the revision control system to include a new version of the system components further comprises:

updating the stored attributes to reflect at least one change to at least one attribute concerning at least one affected system component made by at least one user operation.

5. (Original) The method of claim 2 wherein updating the revision control system to include a new version of the system components further comprises:

modifying the affected system components in the master repository to reflect the performed user operations.

6. (Currently Amended) The method of claim 2 ~~claim 4~~ wherein storing a plurality of system components further comprises:

storing at least one system component from a group of system components consisting of:

a symbolic link;  
a file; and  
a directory.

7. (Currently Amended) The method of claim 2 ~~claim 4~~ wherein storing attributes concerning system components further comprises:

storing at least one attribute concerning at least one system component from a group of attributes consisting of:

a deletion indicator;

- an owner;
- a group;
- a type;
- a version number;
- a mode; and
- security settings.

8. (Currently Amended) The method of claim 2 ~~claim 4~~ further comprising:  
storing, in the master repository, a indication of a next available internal name; and  
updating the indication accordingly as internal names are assigned to system  
components.

9. (Currently Amended) The method of claim 2 ~~claim 4~~ further comprising:  
providing at least one user with a user working area, each user working area comprising  
a working copy of the master repository, in which a user can perform operations on system  
components; and  
only providing users access to system components in user working areas, according to  
their external names.

10. (Original) The method of claim 9 wherein storing a binding between the  
internal name a system component and its corresponding external name further comprises:  
storing a binding between a constant number used to refer to the system component in  
the revision control system and a variable character string used to refer the system component  
by at least one user, in at least one user working area.

11. (Original) The method of claim 9 wherein updating the revision control system  
to include a new version of the system components reflecting a change-set further comprises:  
synchronizing the user working area from which the user made the indication with the  
master repository.

12. (Original) The method of claim 9 wherein responsive to a user performing an operation on at least one system component according to its external name, updating the journal accordingly further comprises:

updating the journal to indicate that the user has performed an operation on at least one system component from a group of operations consisting of:

- adding at least one system component to the master repository;
- backing a change-set out of the master repository;
- changing a group of at least one system component;
- changing a mode of at least one system component;
- changing an owner of at least one system component;
- adding a comment concerning at least one journal entry;
- editing at least one system component;
- modifying linking information concerning at least one system component;
- deleting at least one system component from the master repository;
- un-deleting at least one system component in the master repository;
- renaming at least one system component; and
- undoing at least one earlier performed user operation.

13. (Original) The method of claim 9 further comprising:  
responsive to a request from a user in a working area, providing the user with data from a group of data consisting of:

- at least one entered change-set;
- differences between two versions of a system component;
- information concerning at least one system component;
- a location of the user's working area;
- a listing of system components currently checked out for editing;
- a requested revision of a system component; and
- a path to a root of the master repository.

14. (Original) The method of claim 9 further comprising:

responsive to a user request, synchronizing the user working area from, which the user made the request with the master repository.

15. (Original) The method of claim 9 further comprising:  
requiring a user to check a system component out of the master repository for editing before performing a modifying operation, on the system component.

16. (Currently Amended) A computer readable medium containing a computer program product for facilitating robust revision control of components of a system, the computer program product comprising:

program code for storing a plurality of system components under revision control in a master repository, according to internal names;

program code for storing, under revision control in the master repository, a binding between the internal name of each of the plurality of system components and its corresponding external name;

program code for storing, under revision control in the master repository, attributes concerning system components;

program code for storing, in the master repository, a journal of operations performed on system components;

program code for, responsive to a user performing an operation on at least one system component according to its external name, updating the journal accordingly; and

program code for, responsive to a user indication, updating the revision control system to include a new version of its contents reflecting a change-set of operations consisting of all operations performed by the user on system components since a previous indication from the user;

program code for reading the journal to determine which operations have been performed by the user on system components since the previous indication from the user;

program code for determining the internal names of affected system components;

program code for updating affected system components in the revision control system according to the user performed operations;

program code for updating the journal to reflect processing of the user indication; and  
program code for associating a new version number with a resulting state of the revision  
control system.

17. (Canceled)

18. (Currently Amended) The computer program product of claim 16 ~~claim 17~~ wherein the program code for updating the revision control system to include a new version of the system components further comprises:

program code for updating the stored bindings to reflect at least one change to at least one external name of at least one affected system component made by at least one user operation.

19. (Currently Amended) The computer program product of claim 16 ~~claim 17~~ wherein the program code for updating the revision control system to include a new version of the system components further comprises:

program code for updating the stored attributes to reflect at least one change to at least one attribute concerning at least one affected system component made by at least one user operation.

20. (Currently Amended) The computer program product of claim 16 ~~claim 17~~ wherein the program code for updating the revision control system to include a new version of the system components further comprises:

program code for modifying the affected system components in the master repository to reflect the performed user operations.

21. (Original) The computer program product of claim 16 further comprising:

program code for providing at least one user with a user working area, each user working area comprising a working copy of the master repository, in which a user can perform operations on system components; and

program code for only providing users access to system components in user working areas, according to their external names.

22. (Original) The computer program product for claim 21 wherein the program code for updating the revision control system to include a new version of the system components reflecting a change-set further comprises:

program code for synchronizing the user working area from which the user made the indication, with the master repository.

23. (Original) The computer program product for claim 21 further comprising:  
program code for requiring a user to check a system component out of the master repository for editing before performing a modifying operation on the system component.

24. (Currently Amended) A computer system for facilitating robust revision control of components of a system, the computer system comprising:

a software portion configured to store a plurality of system components under revision control in a master repository, according to internal names;

a software portion configured to store, under revision control in the master repository, a binding between the internal name of each of the plurality of system components and its corresponding external name:

a software portion configured to store, under revision control in the master repository, attributes concerning system components;

a software portion configured to store, in the master repository, a journal of operations performed on system components;

a software portion configured to, responsive to a user performing an operation on at least one system component according to its external name, update the journal accordingly; and

a software portion configured to, responsive to a user indication, update the revision control system to include a new version of its contents reflecting a change-set of operations consisting of all operations performed by the user on system components since a previous indication from the user;

a software portion configured to determine the internal names of affected system components;

a software portion configured to update affected system components in the revision control system according to the user performed operations;

a software portion configured to update the journal to reflect processing of the user indication; and

a software portion configured to associate a new version number with a resulting state of the revision control system.

25. (Canceled)

26. (Currently Amended) The computer system of claim 24 ~~claim-25~~ wherein the software portion configured to update the revision control system to include a new version of the system components further comprises:

a software portion configured to update the stored bindings to reflect at least one change to at least one external name of at least one affected system component made by at least one user operation.

27. (Currently Amended) The computer system of claim 24 ~~claim-25~~ wherein the software portion configured to update the revision control system to include a new version of the system components further comprises:

a software portion configured to update the stored attributes to reflect at least one change to at least one attribute concerning at least one affected system component made by at least one user operation.

28. (Currently Amended) The computer system of claim 24 ~~claim-25~~ wherein the software portion, configured to update the revision control system to include a new version of the system components further comprises:

a software portion configured to modify the affected system components in the master repository to reflect the performed user operations.



29. (Original) The computer system of claim 24 further comprising:  
a software portion configured to provide at least one user with a user working area, each user working area comprising a working copy of the master repository, in which a user can perform operations on system components; and  
a software portion configured to only provide users access to system components in user working areas, according to their external names.

30. (Original) The computer system of claim 29 wherein the software portion configured to update the revision control system to include a new version of the system components reflecting a change-set further comprises:

a software portion configured to synchronize the user working area from which the user made the indication with the master repository.

31 (Original) The computer system of claim 29 further comprising:  
a software portion configured to require a user to check a system component out of the master repository for editing before performing a modifying operation on the system component.